

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

AVENTIS PHARMA S.A.,

Plaintiff,

V.

BAXTER HEALTHCARE CORP.,

Defendant.

Civil Action No. _____

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Aventis Pharma S.A. (“Aventis Pharma”), for its Complaint against Defendant Baxter Healthcare Corp. (“Baxter”), hereby states as follows.

NATURE OF THE ACTION

1. This is an action for infringement of United States Patent No. 5,565,427 (“the ‘427 patent”), arising under the patent laws of the United States, 35 U.S.C. § 100 *et seq.* This action relates to Baxter’s making, using, offering for sale, selling and importing into the United States of its ADVATE® product, which contains a stabilized solution with Factor VIII:C activity.

2. On April 11, 2003, A. Nattermann & Cie GmbH (“Nattermann”) and Aventis Behring L.L.C. (“Aventis Behring”) filed suit against Baxter in this Court, seeking a declaratory judgment that Baxter’s imminent and intended manufacture, use, offering for sale, selling or importing into the United States of its ADVATE® product would constitute infringement of the ’427 patent. During discovery, Baxter produced certain information that it had refused to provide absent litigation. Nattermann, the owner of the ’427 patent at that time, provided this new information to the U.S. Patent and Trademark Office (“PTO”) and requested that the PTO

reexamine the '427 patent in view of this information. Due to the reexamination, the parties stipulated to a dismissal of the litigation without prejudice, which the Court entered on November 4, 2003. In that stipulation, the parties agreed to re-file the action in this same Court once the PTO completed its reexamination of the '427 patent. The reexamination process is now over, and, accordingly, Aventis Pharma brings the present action.

THE PARTIES

3. Aventis Pharma is a corporation organized under the laws of France with its corporate headquarters at 20, avenue Raymond Aron, 92160 Antony, France.

4. Upon information and belief, Baxter is a Delaware Corporation having its corporate offices at One Baxter Parkway, Deerfield, Illinois 60015.

JURISDICTION AND VENUE

5. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

6. This Court has jurisdiction over Baxter because, on information and belief, Baxter is a Delaware corporation and purposefully has conducted and continues to conduct business in this judicial district, has placed the infringing product ADVATE® in the stream of commerce knowing and intending that this judicial district was and is a likely destination of that product, has caused injury to Aventis Pharma in this judicial district, and has committed acts of infringement in this judicial district. In addition, Baxter stipulated to the Court's jurisdiction over this matter in the prior related action.

7. Upon information and belief, this Court has personal jurisdiction over Baxter. Indeed, Baxter stipulated to this Court's exercise of personal jurisdiction over Baxter in the prior related action.

8. Upon information and belief, venue is proper in this judicial district under 28 U.S.C. §§ 1391(c) and 1400(b). Indeed, Baxter stipulated to venue in the prior related action.

FIRST COUNT FOR PATENT INFRINGEMENT

9. The PTO duly and legally issued the '427 patent, entitled "Stabilized Factor VIII Preparations," to Behringwerke Aktiengesellschaft, as assignee of inventor Wilfried Freudenberg, on October 15, 1996. A true and correct copy of the '427 patent is attached as Exhibit A.

10. Behringwerke Aktiengesellschaft merged with Hoechst Aktiengesellschaft, and Hoechst Aktiengesellschaft subsequently assigned the '427 patent to Centeon Pharma GmbH, which in turn became Aventis Behring GmbH upon the merger of Hoechst and Rhone Poulenc to form Aventis. Aventis Behring GmbH subsequently assigned the rights to the '427 patent to Nattermann.

11. Aventis Pharma is the present owner of the '427 patent as a result of an assignment from Nattermann.

12. On July 23, 2002, the PTO issued a Reexamination Certificate. A true and correct copy of the first Reexamination Certificate is attached as Exhibit B.

13. On October 10, 2006, the PTO issued a second Reexamination Certificate. A true and correct copy of the second Reexamination Certificate is attached as Exhibit C.

14. The '427 patent discloses and claims, *inter alia*, stabilized solutions with factor VIII:C activity and methods of manufacturing such stabilized solutions.

15. Baxter has knowledge of the '427 patent and of the infringement allegations regarding Baxter's ADVATE® product as a result of the earlier action and the events preceding that action.

16. Based on information available from the United States Food and Drug Administration's ("FDA") Web site (www.fda.gov), the FDA granted Baxter approval on July 25, 2003, to manufacture, use, offer to sell and sell in the United States its "antihemophilic Factor VIII (Recombinant), plasma/albumin free" product under the trademark ADVATE®.

17. On information and belief, Baxter began selling and offering for sale its ADVATE® product in this judicial district and elsewhere in the United States in August of 2003.

18. Baxter's making, using, offering for sale, selling and importing into the United States of its ADVATE® product infringes one or more claims of the '427 patent under 35 U.S.C. § 271.

DAMAGES AND OTHER HARM SUFFERED BY AVENTIS PHARMA

19. Baxter's acts of infringement have damaged Aventis Pharma in an amount not yet determined and will continue to damage Aventis Pharma in the future.

20. Upon information and belief, Baxter's acts of infringement constitute willful infringement, entitling Aventis Pharma to treble damages and attorneys' fees.

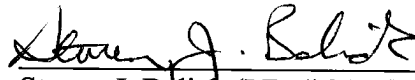
PRAYER FOR RELIEF

WHEREFORE, Aventis Pharma respectfully requests that the Court enter judgment in its favor, and against Baxter, on the patent infringement claim set forth above, and that it award the following relief:

- (1) find that Baxter infringes at least one claim of the '427 patent by its making, using, offering for sale, selling and importing into the United States of its ADVATE® product;
- (2) find that Baxter's infringement has been willful;

- (3) award Aventis Pharma damages adequate to compensate it for the aforesaid infringement, together with prejudgment interest thereon;
- (4) treble damages under 35 U.S.C. § 284 because of Baxter's willful infringement;
- (5) award Aventis Pharma its reasonable attorneys' fees and the costs of this action under 35 U.S.C. § 285; and
- (6) award Aventis Pharma any further and additional relief as this Court deems just and proper.

ASHBY & GEDDES



Steven J. Balick (I.D. # 2114)

John G. Day (I.D. #2403)

Lauren E. Maguire (I.D. #4261)

222 Delaware Avenue, 17th Floor,

P.O. Box 1150

Wilmington, Delaware 19899-1150

Tel: (302) 654-1888

Attorneys for Plaintiff Aventis Pharma S.A.

Of Counsel:

James B. Monroe
FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.
901 New York Ave., N.W.
Washington, DC 20001
Tel.: (202) 408-4000

Dated: October 16, 2006
174152.1

EXHIBIT A



US005565427A

United States Patent [19]
Freudenberg

[11] **Patent Number:** **5,565,427**
 [45] **Date of Patent:** **Oct. 15, 1996**

[54] **STABILIZED FACTOR VIII PREPARATIONS**

[75] Inventor: **Wilfried Freudenberg**,
 Cölbe-Schönstadt, Germany

[73] Assignee: **Behringwerke Aktiengesellschaft**,
 Marburg, Germany

[21] Appl. No.: **235,241**

[22] Filed: **Apr. 29, 1994**

Related U.S. Application Data

[63] Continuation of Ser. No. 82,911, Jun. 29, 1993, abandoned,
 which is a continuation of Ser. No. 864,610, Apr. 7, 1992,
 abandoned.

[30] **Foreign Application Priority Data**

Apr. 9, 1991 [DE] Germany 41 11 393.4

[51] Int. Cl.⁶ **A61K 35/14; C07K 1/00;**
C07K 14/00

[52] U.S. Cl. **514/12; 514/21; 530/383**

[58] Field of Search **530/383; 514/12,**
514/21

[56] **References Cited****U.S. PATENT DOCUMENTS**

4,650,858 3/1987 Rasmussen et al. 530/383
 4,743,680 5/1988 Mathews et al. 530/413
 5,110,907 5/1992 Kosow et al. 530/413

OTHER PUBLICATIONS

H. Schwinn et al., Drug. Res., vol. 39 (II), No. 10:
 1302-1305 (1989).

Meyers, R. et al., "Large Scale Preparation of a Highly
 Purified Solvent-Detergent Treated Factor VIII Concen-
 trate," VOX Sang. vol. 60, pp. 141-147 (1991).

Primary Examiner—Elizabeth C. Weimar

Assistant Examiner—P. Lynn Touzeau

Attorney, Agent, or Firm—Finnegan, Henderson, Farabow,
 Garrett & Dunner, L.L.P.

[57] **ABSTRACT**

The invention relates to stabilized solutions with F VIII
 coagulation activity, to a process for the preparation thereof
 and to the use thereof.

13 Claims, No Drawings

5,565,427

1

STABILIZED FACTOR VIII PREPARATIONS

This application is a continuation of application Ser. No. 08/082,911 filed Jun. 29, 1993, now abandoned, which is a continuation of application Ser. No. 07/864,610, filed Apr. 7, 1992, abandoned.

The invention relates to stabilized solutions with F VIII coagulation activity, to a process for the preparation thereof and to the use thereof.

Coagulation factor VIII:C (F VIII:C) is a plasma protein and essential for the process of the intrinsic pathway of blood coagulation. A deficiency or a defect in blood coagulation factor VIII:C results in a life-threatening disturbance of blood coagulation, hemophilia A. Concentrates of F VIII:C from human plasma or genetically engineered F VIII:C are employed for the therapy of hemophilia A.

These F VIII products differ in respect of their purity, i.e. the presence of proteins which do not have coagulation activity in addition to the active substance F VIII:C. A F VIII which has more than 1000 U/mg before stabilization with albumin is called very high purity F VIII (VHP F VIII:C) (WHO, Expert Committee on Biological Standardization).

Such VHP F VIII:C have potential advantages in the treatment of hemophilia. These are the freedom from viruses and a very small content of foreign protein, which means less stress on the immune system of the patients after administration of these concentrates. The advantage which is possible per se, of less stress on the immune system of a hemophiliac patient by administration of a F VIII preparation with high specific activity, is, however, cancelled out by addition of high albumin concentrations to the highly purified product in order to stabilize the VHP F VIII. This addition of albumin means that the highly purified F VIII concentrates reach specific activities of only 3–10 U/mg in the final formulation thereof.

Although addition of albumin entails only a slight risk with respect to virus safety, it has to be borne in mind, however, that with albumin whose purity averages 95% once again unwanted concomitant proteins are administered to the patient and may stress his immune system.

High purity F VIII product: which dispense with addition of albumin for stabilization of F VIII are known (Schwinn, Smith & Wolter, Drug. Res. 39 (1989), 1302). These products reach specific activities of about 100 U/mg of protein. Based on a maximum achievable F VIII activity of about 5000 U/mg, this means that only about 2% of the protein content of these preparations comprises F VIII:C protein. It is to be assumed in this case that this 2% F VIII:C is stabilized by the 98% concomitant proteins, because a large part of these concomitant proteins is likely to comprise von Willebrand Factor (vWF). It is known that von Willebrand Factor has a stabilizing action on F VIII:C.

The situation is different with very high purity products which have specific activities which, before albumin stabilization, are usually more than 25 times higher than for high purity products, and the vWF content thereof is very low. This low vWF content is no longer able to ensure adequate F VIII stabilization so that the F VIII activity in solutions which are not stabilized with albumin rapidly decreases.

The object of the present invention was therefore to provide a process which makes it possible to prepare a highly concentrated, physiologically tolerated solution of a VHP F VIII:C product, which solution requires no addition of proteins for stabilization.

2

This object is achieved according to the invention by adding an amino acid or one of its salts, derivatives or homologs to a VHP F VIII:C preparation. It is possible to add L- and/or D-amino acids. Particular suitable are arginine, lysine, ornithine, guanidinoacetic acid or others whose common feature is a basic group in the form of an amino and/or guanidino group.

The invention therefore relates to a solution with factor VIII:C activity containing an amino acid or one of its salts or derivatives and, where appropriate, a detergent or an organic polymer.

Preferred embodiments are:

- a solution wherein the amino acid is a natural amino acid;
- a solution wherein the amino acid is a basic amino acid;
- a solution which contains arginine and glycine;
- a solution wherein the concentration of the amino acid is 0.001 to 1 mol/l;

- a solution which additionally contains an organic polymer or a nonionic detergent;

- a solution wherein the F VIII:C activity derives from human factor VIII in its form which occurs in plasma or from a genetically engineered factor VIII:C or a derivative of these;

- and a solution wherein the specific F VIII:C activity is at least 1000 IU/mg.

Improved stabilization is achieved by combination of amino acids or their derivatives or with a nonionic detergent such as [®]Polysorbate 20 or [®]Polysorbate 80 or an organic polymer such as polyethylene glycol 1500.

A combination of the amino acids arginine and glycine, preferably 0.01 to 1 mol/l, with the nonionic detergent [®]Tween 80, preferably 0.001 to 0.5% (v/v), and with a neutral sugar such as sucrose, preferably 0.1 to 10%, has proven particularly suitable for the preparation of a stable, albumin-free VHP F VIII:C solution.

The pH of a solution of this type is adjusted to between pH 5.5 and 8.5, preferably between pH 6.5 and 7.5, by means of an organic acid, preferably 10% strength acetic acid.

The invention also relates to a pharmaceutical containing a solution of this type. Besides a solution of this type, this pharmaceutical can contain customary, pharmaceutically compatible, stabilizing and/or buffering substances, especially a carbohydrate.

The invention likewise relates to a process for the preparation of a solution of this type, wherein an amino acid or one of its salts or derivatives and, where appropriate, an organic polymer or a detergent is added to a solution with factor VIII:C activity.

The advantageous effect of the process according to the invention can be shown, for example, for a F VIII:C preparation which has been purified by chromatography on monoclonal anti-F VIII:C antibodies, it being possible for the F VIII:C to be both obtained from plasma and genetically engineered, for example in CHO (Chinese Hamster Ovary) cells. This entails, for example, equal parts of a solution of the abovementioned substances being added to the eluate from the monoclonal antibody column, and subsequently the latter being dialyzed against this solution. The stabilized F VIII:C preparation obtained in this way can be sterilized by filtration and bottled with low method-related losses. A lyophilizate of this preparation obtained in this way has unchanged high F VIII:C activities after dissolution.

It is possible with the process according to the invention to prepare a VHP F VIII:C preparation whose specific volume-based activity is at least 200 IU/ml, with a specific activity of more than 2000 IU/mg. This concentration ensures that there are no problems with manipulation owing to the need to administer small volumes.

5,565,427

3

A preparation of this type does not need further stabilization by proteins, which avoids the risk of virus contamination. At the same time, the reduction in the high protein load means a considerable reduction in the stress on the immune system of the patient due to the addition of the albumin, which is unnecessary for the medicinal action, and of the unwanted impurities contained therein.

Since physiologically tolerated substances are added for the stabilization, no intolerance reactions occur on administration of the solution according to the invention.

EXAMPLE 1

Two VHP F VIII:C preparations were prepared, both by means of affinity chromatography on monoclonal anti-vWF Ig (method of Fulcher & Zimmermann PNAS (1982), 79, 1649) and dissociation of the vWF/F VIII:C complex by solution with a CaCl_2 concentration of 300 mM in 0.1 M acetate, 0.1 M lysine, pH 6.8 (eluate I), and by means of chromatography on monoclonal anti-F VIII:C Ig and elution of the F VIII:C by 50% ethylene glycol in 0.1 M acetate, 0.1 M lysine, pH 6.8 (eluate II). The specific F VIII:C activity determined in eluate I was 2500 IU/mg and 419 IU/ml, and in eluate II was 3280 IU/mg and 454 IU/ml. The two eluates were divided in each case. To one portion in each case was added in the ratio 1:1 by volume a 1% strength human albumin solution in 0.75% sucrose, 3% glycine and 0.1 mol/l NaCl (eluate I_{HSA}, eluate II_{HSA}). The stabilization buffer (0.75% sucrose, 3% glycine, 3% arginine, 0.05% Tween 80, pH 6.8) was likewise added 1:1 to the other half in each case (eluate I_S, eluate II_S). The albumin-containing samples were dialyzed against 0.75% sucrose, 3% glycine, 0.1 mol/l NaCl, pH 6.8, and the others against stabilization buffer. Dialysis was carried out at 4° C. for 16 hours with 1000-fold volume change. The F VIII:C activities were measured before and after the dialysis. Table 1 shows the F VIII:C activity in % relative to the total F VIII:C activity in the particular sample before dialysis.

TABLE 1

Eluate I _{HSA}	Eluate I _S	Eluate II _{HSA}	Eluate II _S
92	94	94	93

The results show that stabilization of the VHP F VIII:C eluates by means of the stabilization solution according to the invention is achieved irrespective of the preparation method and to the same extent as by addition of albumin.

EXAMPLE 2

An F VIII:C eluate with a specific F VIII:C activity of 3860 IU/mg of protein and 462 IU/ml was obtained after immunoaffinity chromatography on monoclonal anti-F VIII:C antibodies. Various stabilization solutions were added to this in the ratio 1:1 by volume, and it was dialyzed against the relevant stabilization solution as described in Example 1. A pH of 6.8 was adjusted in all solutions where appropriate with 10% acetic acid.

The following stabilization solutions were employed:

- I. 0.75% sucrose, 0.4 M glycine, 0.15 M sodium chloride
- II. 0.01M sodium citrate, 0.08 M glycine, 0.016 M lysine, 0.0025 M calcium chloride, 0.4 M sodium chloride

4

III. 1% sucrose, 0.14 M arginine, 0.1M sodium chloride

IV. 1% sucrose, 0.4 M glycine, 0.14 M arginine, 0.1M sodium chloride, 0.05% Tween 80

The F VIII:C activity was determined before and after the dialysis. In Table 2 the F VIII:C activity after dialysis is plotted in % relative to the relevant activity before dialysis.

TABLE 2

Mixture	I	II	III	IV
F VIII:C activity after dialysis for 16 hours	39.3%	35.1%	82.4%	96.2%

The solutions employed under I and II can be employed for the stabilization of albumin-free HP F VIII products with specific F VIII:C activities of 100–200 IU/mg, dispensing with addition of albumin. Solutions III and IV are suitable for stabilization of VHP F VIII preparations with specific F VIII:C activities greater than 1000 IU/mg.

I claim:

1. A stabilized solution with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs and a detergent or an organic polymer, wherein the specific factor VIII:C activity is at least 1000 IU/mg.

2. A solution as claimed in claim 1, wherein the amino acid is a natural amino acid.

3. A solution as claimed in claim 1, wherein the amino acid is a basic amino acid.

4. A solution as claimed in claim 1, which contains arginine and glycine.

5. A solution as claimed in claim 1, wherein the concentration of the amino acid is 0.001 to 1 mol/l.

6. A solution as claimed in claim 1, which contains an organic polymer or a nonionic detergent.

7. A solution as claimed in claim 1, wherein the F VIII:C activity is derived (a) from human factor VIII in its form which occurs in plasma or (b) from a genetically engineered factor VIII:C or (C) from a homolog of (a) or (b).

8. A pharmaceutical containing a solution as claimed in claim 1.

9. A pharmaceutical as claimed in claim 8 further containing pharmaceutically compatible, stabilizing or buffering substances.

10. A pharmaceutical as claimed in claim 9, which contains a carbohydrate.

11. A process for the preparation of a stable factor VIII:C solution which comprises adding an amino acid or one of its salts or homologs and an organic polymer or a detergent to a solution with factor VII I:C activity, wherein the specific factor VIII:C activity is at least 1000 IU/mg.

12. A stabilized solution as claimed in claim 1 containing an amino acid or one of its salts or homologs and an organic polymer, wherein the amino acid is arginine or glycine and the organic polymer is polyethylene glycol.

13. A stabilized solution as claimed in claim 1 containing an amino acid or one of its salts or homologs and a detergent, wherein the amino acid is arginine or glycine and the detergent is polyoxyethylene sorbitan mono-oleate.

* * * * *

EXHIBIT B



US005565427C1

(12) REEXAMINATION CERTIFICATE (4618th)

United States Patent
Freudenberg

(10) Number: US 5,565,427 C1
(45) Certificate Issued: Jul. 23, 2002

(54) STABILIZED FACTOR VIII PREPARATIONS

(75) Inventor: Wilfried Freudenberg,
Cölbe-Schönstadt (DE)

(73) Assignee: Aventis Behring GmbH, Marburg (DE)

Reexamination Request:

No. 90/006,025, May 30, 2001

Reexamination Certificate for:

Patent No.: 5,565,427
Issued: Oct. 15, 1996
Appl. No.: 08/235,241
Filed: Apr. 29, 1994

Certificate of Correction issued Feb. 18, 1997.

Related U.S. Application Data

(63) Continuation of application No. 08/082,911, filed on Jun. 29, 1993, now abandoned, which is a continuation of application No. 07/864,610, filed on Apr. 7, 1992, now abandoned.

(30) Foreign Application Priority Data

Apr. 9, 1991 (DE) 41 11 393

(51) Int. CL.⁷ A61K 35/14; C07K 1/00;
C07K 14/00

(52) U.S. CL. 514/12; 514/21; 530/383

(58) Field of Search 514/12, 21; 530/383

(56) References Cited

U.S. PATENT DOCUMENTS

4,440,679 A * 4/1984 Fernandes et al. 530/363
4,446,134 A * 5/1984 Naito et al. 514/2
4,495,175 A * 1/1985 Chavin et al. 530/383
4,543,210 A * 9/1985 Mitra et al. 530/383
4,623,717 A * 11/1986 Fernandes et al. 530/380
4,650,858 A * 3/1987 Rasmussen et al. 530/383
4,743,680 A * 5/1988 Mathews et al. 530/383
4,749,780 A * 6/1988 Andersson et al. 530/383
4,795,806 A * 1/1989 Brown et al. 530/383

4,857,635 A * 8/1989 Zimmerman et al. 530/383
4,877,608 A * 10/1989 Lee et al. 424/85.8
5,110,907 A * 5/1992 Kosow et al. 530/383
5,328,694 A * 7/1994 Schwinn 424/423
5,565,427 A * 10/1996 Freudenberg 514/12
5,605,884 A * 2/1997 Lee et al. 514/8
5,760,183 A * 6/1998 Dazey et al. 530/383

FOREIGN PATENT DOCUMENTS

AU 60150/90 * 2/1991
EP 123 945 * 11/1984
EP 315 968 * 5/1989
EP 383 645 * 8/1990
EP 468 181 * 1/1992
GB 941019 * 11/1963
WO 91/10439 * 7/1991

OTHER PUBLICATIONS

Myers et al. Large-Scale Preparation of a Highly Purified Solvent-Detergent Treated Factor VIII Concentrate. Vox Sang. 1991, vol. 60, pp. 141-147.*

Fay et al. Purification and characterization of a highly purified human factor VIII consisting of a single type of polypeptide chain. Proc. Natl. Acad. Sci. USA. Dec. 1982, vol. 79, pp. 7200-7204.*

Fulcher et al. Characterization of the human factor VIII procoagulant protein with a heterologous precipitating antibody. Proc. Natl. Acad. Sci. USA. Mar. 1982, vol. 79, pp. 1648-1652.*

Schwinn et al. Progress in Purification of Virus-inactivated Factor VIII Concentrates. Drug Res. 1989, vol. 39 (II), No. 10, pp. 1302-1305.*

Lewis, Sr. Hawley's Condensed Chemical Dictionary, Twelfth Edition. 1993, pp. 53, 357, 606, 936, 1020.*

* cited by examiner

Primary Examiner—Jeffrey E. Russel

(57) ABSTRACT

The invention relates to stabilized solutions with F VIII coagulation activity, to a process for the preparation thereof and to the use thereof.

US 5,565,427 C1

1
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 307

NO AMENDMENTS HAVE BEEN MADE TO
THE PATENT

2
AS A RESULT OF REEXAMINATION, IT HAS BEEN
DETERMINED THAT:

The patentability of claims 1-13 is confirmed.

* * * * *

20060914 15:20:00

EXHIBIT C

(12) EX PARTE REEXAMINATION CERTIFICATE (5561st)**United States Patent**
Freudenberg**(10) Number: US 5,565,427 C2**
(45) Certificate Issued: Oct. 10, 2006**(54) STABILIZED FACTOR VIII PREPARATIONS****(75) Inventor: Wilfried Freudenberg,**
Cölbe-Schönstadt (DE)**(73) Assignee: A. Nattermann und Cie GmbH,**
Cologne (DE)**Reexamination Request:**

No. 90/006.823, Oct. 21, 2003

Reexamination Certificate for:

Patent No.: 5,565,427

Issued: Oct. 15, 1996

Appl. No.: 08/235,241

Filed: Apr. 29, 1994

Reexamination Certificate CI 5,565,427 issued Jul. 23, 2002

Certificate of Correction issued Feb. 18, 1997.

Related U.S. Application Data**(63)** Continuation of application No. 08/082,911, filed on Jun. 29, 1993, now abandoned, which is a continuation of application No. 07/864,610, filed on Apr. 7, 1992, now abandoned.**(30) Foreign Application Priority Data**

Apr. 9, 1991 (DE) 41 11 393

(51) Int. Cl.**A61K 35/14** (2006.01)**C07K 1/00** (2006.01)**C07K 14/00** (2006.01)**(52) U.S. Cl.** 514/12; 514/21; 530/383**(58) Field of Classification Search** 514/12,
514/21; 530/383

See application file for complete search history.

(56) References Cited**U.S. PATENT DOCUMENTS**

4,089,944 A	5/1978	Thomas	.....	424/101
4,297,344 A	10/1981	Schwinn et al.	.....	424/101
4,614,795 A	9/1986	Chavin et al.	.....	530/383
4,758,657 A	7/1988	Farb et al.	.....	530/383
4,981,951 A	1/1991	Tsay	.....	530/383
5,043,428 A	8/1991	Heimbürger et al.	.....	530/383
5,068,106 A	11/1991	Pâques et al.	.....	424/94.3
5,424,401 A	6/1995	Heimbürger et al.	.....	530/383

FOREIGN PATENT DOCUMENTS

EP	0 035 204 B1	9/1981
EP	0 286 323 B1	10/1988
EP	0 314 095	5/1989
EP	0 412 466 A2	8/1990
EP	0 410 207 *	1/1991
WO	WO 90/05140	5/1990

OTHER PUBLICATIONS

Oct. 4, 2004, Deposition Transcript and Exhibits of the Deposition of C. Einaudi.

Oct. 12, 2004, Deposition Transcript and Exhibits of the Deposition of J. Bennett.

Oct. 14, 2004, Deposition Transcript and Exhibits of the Deposition of H. Lauppe.

Oct. 15, 2004, Deposition Transcript and Exhibits of the Deposition of A. Groner.

Oct. 21, 2004, Deposition Transcript and Exhibits of the Deposition of W. Freudenberg.

Feb. 15, 2004, Letter to Judge Brody with exhibits.

Jul. 11, 2003, Transcript of Jul. 11, 2003 hearing.

Jul. 30, 2003, Plaintiffs' Response to Baxter's First Set of Interrogatories (Nos. 1-16) and Notice of Service.

Aug. 13, 2003, Plaintiffs' Objections and Responses to Baxter's First Set of Requests for Admission (Nos. 1-85) and Notice of Service.

Sep. 17, 2003, Highlighted Farb document submitted during the Sep. 17, 2003 hearing with Judge Sleet.

Sep. 17, 2003, Transcript of Sep. 17, 2003 hearing.

Oct. 1, 2003, Plaintiffs' Supplemental Response to Baxter's First Set of Interrogatories (Nos. 1-16) and Notice of Service.

Oct. 7, 2003, Letter from Balick to Judge Sleet.

Oct. 7, 2003, Letter from Rovner to Judge Sleet.

Oct. 10, 2003, Transcript of Oct. 10, 2003 hearing.

Jul. 30, 2003, Plaintiffs' Objections and Responses to Bayer's First Set of Interrogatories (Nos. 1-19) and Verification of Answers and Certificate of Service.

Aug. 4, 2003, Defendants' Responses to Plaintiffs' First Set of Interrogatories (Nos. 1-18) and Certificate of Service.

Aug. 4, 2003, Defendants' Responses to Plaintiffs' First Set of Requests for Admission (Nos. 1-13) and Certificate of Service.

Oct. 3, 2003, Plaintiffs' Objections and Responses to Bayer's First Set of Requests for Admission (Nos. 1-8) and Notice of Service.

Oct. 3, 2003, Plaintiffs' Objections and Responses to Bayer's Second Set of Interrogatories (Nos. 20-26) and Notice of Service.

Nov. 12, 2003, Plaintiffs' Motion to Dismiss All Claims and Counterclaims without Prejudice or, in the Alternative, Stay Proceedings Pending Reexamination of U.S. Pat. No. 5,565, 427.

Nov. 21, 2003, Plaintiff's Opposition to Defendant's Motion for leave to file amended answer and counterclaims.

Mar. 22, 2004, Transcript of Motion before Judge Brody to stay or dismiss.

Mar. 30, 2004, ORDER.

Mar. 30, 2004, Bayer's subpoena of Finnegan-Henderson of documents in attached Schedule A.

Mar. 30, 2004, Defendant's Revised Notice of Deposition of A. Nattermann & Cie GmbH, Aventis Behring L.L.C. & Aventis Behring GmbH Pursuant to Rule 30(b)(6).

Apr. 2, 2004, Notice of Service of Subpoena on Finnegan-Henderson and Subpoena itself.

(Continued)

Primary Examiner—Kathleen M. Kerr**(57) ABSTRACT**

The invention relates to stabilized solutions with F VIII coagulation activity, to a process for the preparation thereof and to the use thereof.

US 5,565,427 C2

Page 2

OTHER PUBLICATIONS

May 3, 2004, Letter from T. Donaldson to T. Poche attaching Plaintiffs' objections and responses to Bayer's Mar. 30, 2004 Subpoena of Finnegan Henderson.

May 8, 2004, Order of May 8, 2004.

May 13, 2004, Order that Defendants' motion for summary judgment is DENIED without prejudice.

Jun. 1, 2004, ORDER memorializing parties agreement to complete depositions on or before Oct. 15, 2004.

Jun. 4, 2004, ORDER stating that Plaintiff's Motion to Stay and Plaintiff's Motion for Discovery are Denied as moot.

Sep. 27, 2004, Letter attaching copies of Subpoena of D. Farb, Notice of Services of Subpoena, Defendants' Notice of Deposition of Farb.

Sep. 27, 2004, Letter stating that Finnegan will be representing Dr. D. Farb at his deposition and will accept service on his behalf.

Sep. 28, 2004, Letter from T. Donaldson to T. Poche.

Oct. 21, 2004, Transcript of teleconference between Bayer, Aventis and Judge Brody re deposition of Dr. Freudenberg.

Feb. 16, 2005, Letter to Judge Brody.

Feb. 24, 2005, Letter to Judge Brody.

Mar. 4, 2005, Letter to the Court.

Mar. 10, 2005, Letter to the Court.

Mar. 11, 2005, Letter to Judge Brody.

Mar. 15, 2005, Letter to Judge Brody.

Mar. 16, 2005, Letter to Judge Brody.

Mar. 16, 2005, Copy of ORDER maintaining current stay pending the reexamination by the USPTO and requiring that parties keep the Court updated on its progress.

Derwent Abstract for WO 90/05140.

I. Scharrer, "Current status of a recombinant antihemophilic factor VIII clinical trial organized by Baxter," *Ann. Hematology*, 63: 172-176 (1991).

Order Granting Plaintiff's Motion for Discovery Under FED. R. CIV. P. 56(f).

Motion for Discovery Under FED. R. CIV. P. 56(f) on behalf of Plaintiffs filed Nov. 24, 2003.

Redacted Copy of Plaintiff's Memorandum in Support of Motion for Discovery Under FED. R. CIV. P. 56(f) filed Nov. 24, 2003, with attached Exhibits 1-16.

Order Denying Bayer's Motion for Summary Judgment of Noninfringement.

Redacted copy of Plaintiff's Opposition to Defendant's Motion for Summary Judgment of Noninfringement filed Nov. 24, 2003, with attached Exhibits 1-9.

Order Dismissing All Claims and Counterclaims Without Prejudice.

Order Staying Any Further Proceedings Pending Outcome of Reexamination of U.S. Pat. No. 5,565,427.

Plaintiffs' Memorandum of Law in Support of Its Motion to Dismiss All Claims and Counterclaims Without Prejudice or, in the Alternative, Stay Proceedings Pending Reexamination of U.S. Pat. No. 5,565,427 (Exhibits 1-10) filed Jan. 16, 2004.

Plaintiff's Answer to First Amended Counterclaims, filed Dec. 23, 2003.

Transcript of Dec. 1, 2003, hearing before the Honorable Anita B. Brody in Civil Action No. 03-2268 in the United States District Court for the Eastern District of Pennsylvania.

Bayer's Opposition to Plaintiffs' Motion to Dismiss All Claims and Counterclaims Without Prejudice or, in the Alternative, Stay Proceedings Pending Reexamination of U.S. Pat. No. 5,565,427 (with Exhibits), filed Jan. 30, 2004.

Plaintiffs' Memorandum of Law in Opposition to Defendants' Motion For a Rule 54(b) Declaratory Judgment Regarding Aventis Behring's State Court Action (with Exhibits), filed Feb. 9, 2004.

Plaintiffs' Reply Memorandum of Law in Support of its Motion to Dismiss All Claims and Counterclaims Without Prejudice or, in the Alternative, Stay Proceedings Pending Reexamination of U.S. Pat. No. 5,565,427 (with Exhibits), filed Feb. 13, 2004.

Defendants' Reply to Plaintiffs' Memorandum of Law in Opposition to Defendants' Motion For Rule 54(b) Declaratory Judgment Regarding Aventis Behring's State Court Action (with Exhibits), filed Feb. 16, 2003.

Order dated Feb. 19, 2004 in Civ. A. No. 03-2268 (*Nattermann v. Bayer* litigation).

Letter from Bayer's counsel to Honorable Anita B. Brody regarding Protective Order (with Exhibits) dated Mar. 12, 2004.

Letter from Nattermann's counsel to Honorable Anita B. Brody regarding Protective Order dated Mar. 17, 2004.

Order dated Nov. 25, 2003 in Civ. A. No. 03-2268 (*Nattermann v. Bayer* litigation).

Bayer's Opposition to Plaintiffs' Motion To Dismiss All Claims And Counterclaims Without Prejudice or, in the Alternative, Stay Proceedings Pending Reexamination (with Exhibits), filed Nov. 26, 2003.

Defendants' First Amended Answer And Counterclaims, filed Nov. 26, 2003.

Transcript of Hearing Held on Dec. 1, 2003 in Civ. A. No. 03-2268 (*Nattermann v. Bayer* Litigation).

Plaintiffs' Answer to First Amended Counterclaim, filed Dec. 23, 2003.

Letter from Bayer's Counsel to Honorable Anita B. Brody dated Jan. 7, 2004, submitted in Civ. A. No. 03-2268 (with Exhibits).

Letter from Nattermann's counsel to Honorable Anita B. Brody dated Jan. 9, 2004, submitted in Civ. A. No. 03-2268 (with Exhibits).

Plaintiffs' Motion To Dismiss All Claims And Counterclaims Without Prejudice Or, In The Alternative, Stay Proceedings Pending Reexamination Of U.S. Pat. No. 5,565, 527 (with Order and Exhibits), filed Jan. 16, 2004.

Letter from Bayer's counsel to Honorable Anita B. Brody forwarding Stipulated Protective Order and copy of Stipulated Protective Order, dated Jan. 21, 2004.

Transcript of Jan. 12, 2004 hearing in the Civ. A. No. 03-2268 (*Nattermann v. Bayer* litigation).

Bayer's Motion For Declaratory Judgment of Waiver of Plaintiff's Compulsory Counterclaims (with Exhibits), filed Jan. 26, 2004.

Order dated Jan. 29, 2004 in Civ. A. No. 03-2268 (*Nattermann v. Bayer* litigation).

Arakawa, Tsutomu et al., "Stabilization of Protein Structure by Sugars," *Biochemistry*, vol. 21: 6536-6544 (1982).

Berntorp, Erik, et al., "Hepatitis C Virus Transmission by Monoclonal Antibody Purified Factor VIII Concentrate," *The Lancet*, vol. 335: 1531-1532 (1990).

Bray, Gordon L., "Recent Advances in the Preparation of Plasma-Derived and Recombinant Coagulation Factor VIII," *The Journal of Pediatrics*: 503-507 (1990).

US 5,565,427 C2

Page 3

Tootill, E., "The Facts on File Dictionary of Biology," Revised and Expanded Edition, pp. 44; 293.

Kernoff, Peter B. A., "Hepatitis and Factor VIII Concentrates," *Seminars in Hematology*, vol. 25:2, Suppl. 1: 8-13 (1988).

Lee, James C. et al., "The Stabilization of Proteins by Sucrose," *The Journal of Biological Chemistry*, vol. 256: (14) 7193-7201 (1981).

Lusher, Jeanne M. et al., "Viral Safety and Inhibitor Development Associated With Factor VIII Ultra-Purified From Plasma in Hemophiliacs Previously Unexposed to Factor VIII Concentrates," *Seminar in Hematology*, vol. 27:2, Suppl. 2: 1-7 (1990).

Budavari, Susan et al. (eds.), "The Merck Index, An Encyclopedia of Chemicals, Drugs, and Biologicals," p. 1401 (1989).

Pierce, Glen F. et al., "The Use of Purified Clotting Factor Concentrates in Hemophilia, Influence of Viral Safety, Cost, and Supply on Therapy," *JAMA*, vol. 261:23, (1989).

Stryer, Lubert, "Biochemistry Third Edition," pp. 16-21 (1988).

A. Munoz et al., "A randomized hemodynamic comparison of intravenous amiodarone with and without Tween 80," *European Heart Journal*, vol. 9: 142-148 (1988).

Complaint for Patent Infringement filed by A. Nattermann & Cie GmbH et al. against Baxter Healthcare Corp. in the District Court for the District of Delaware (Apr. 11, 2003).

Answer and Counterclaim for Declaratory Judgment filed by Baxter Healthcare Corp. in the District Court for the District of Delaware (May 27, 2003).

Reply of Counterclaim filed by A. Nattermann & Cie GmbH et al. in the District Court for the District of Delaware (Jun. 18, 2003).

Defendants' Answer and Counterclaims filed by Bayer Corp. et al., in the District Court for the Eastern District of Pennsylvania (May 1, 2003).

Answer to Counterclaims filed by A. Nattermann & Cie GmbH et al. in the District Court for the Eastern District of Pennsylvania (May 21, 2003).

Defendants' Motion for Summary Judgment of Noninfringement (with attachments), filed by Bayer Corp. et al., in the District Court for the Eastern District of Pennsylvania (Oct. 10, 2003).

Memorandum in Support of Defendants' Motion for Summary Judgment of Noninfringement (with attachments), filed by Bayer Corp. et al., in the District Court for the Eastern District of Pennsylvania (Oct. 10, 2003).

Bayer Corporations's and Bayer Healthcare LLC's Motion for Leave to File Defendants' First Amended Answer and Counterclaims filed in the District Court for the Eastern District of Pennsylvania (with attachments) (Oct. 14, 2003).

Bayer Corporations's and Bayer Healthcare LLC's Memorandum in Support of Their Motion for Leave to File Defendants' First Amended Answer and Counterclaims filed in the District Court for the Eastern District of Pennsylvania (with attachments) (Oct. 14, 2003).

* cited by examiner

US 5,565,427 C2

1

**EX PARTE
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 307**

THE PATENT IS HEREBY AMENDED AS
INDICATED BELOW.

Matter enclosed in heavy brackets [] appeared in the patent, but has been deleted and is no longer a part of the patent; matter printed in italics indicates additions made to the patent.

AS A RESULT OF REEXAMINATION, IT HAS BEEN
DETERMINED THAT:

The patentability of claim 11 is confirmed.

Claim 1 is cancelled.

Claims 2-8, 10, 12 and 13 are determined to be patentable as amended.

Claim 9, dependent on an amended claim, is determined to be patentable.

New claims 14-23 are added and determined to be patentable.

2. A solution as claimed in claim [1] 15, wherein the amino acid is a natural amino acid.

3. A solution as claimed in claim [1] 15, wherein the amino acid is a basic amino acid.

4. A stabilized solution [as claimed in claim 1, which] with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs and a detergent or an organic polymer, wherein the specific factor VIII:C activity is at least 1000 IU/mg and wherein the stabilized solution contains arginine and glycine.

5. A solution as claimed in claim [1] 15, wherein the concentration of the amino acid is 0.001 to 1 mol/l.

6. A solution as claimed in claim [1] 15, which contains an organic polymer or a nonionic detergent.

7. A solution as claimed in claim [1] 15, wherein the F VIII:C activity is derived (a) from human factor VIII in its form which occurs in plasma or (b) from a genetically engineered factor VIII:C or (c) from a homolog of (a) or (b).

8. A pharmaceutical containing a solution as claimed in claim [1] 14.

10. A pharmaceutical [as claimed in claim 9] which contains a stabilized solution with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs, a detergent or an organic polymer, and a carbohydrate wherein the specific factor VIII:C activity is at least 1000 IU/mg, and further containing pharmaceutically compatible, stabilizing or buffering substances.

12. A stabilized solution [as claimed in claim 1] with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs and an organic polymer, wherein the specific factor VIII:C activity is at least 1000

2

IU/mg, and wherein the amino acid is arginine or glycine and the organic polymer is polyethylene glycol.

13. A stabilized solution as claimed in claim [1] 15, containing an amino acid or one of its salts or homologs and a detergent, wherein the amino acid is arginine or glycine and the organic detergent is polyoxyethylene sorbitan mono-oleate.

14. A stabilized solution with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs and a detergent or organic polymer, wherein the specific factor VIII:C activity is at least 2000 IU/mg.

15. A stabilized solution with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs, a detergent or organic polymer, and a carbohydrate, wherein the specific factor VIII:C activity is at least 1000 IU/mg.

16. A stabilized solution with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs, a detergent or organic polymer, and a carbohydrate, wherein the specific factor VIII:C activity is at least 2000 IU/mg.

17. A stabilized solution with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs, a detergent or organic polymer, and a carbohydrate, wherein the specific factor VIII:C activity is at least 3280 IU/mg.

18. A stabilized solution with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs, a detergent or organic polymer, and a carbohydrate, wherein the specific factor VIII:C activity is at least 2000 IU/mg and wherein the stabilized solution with factor VIII:C activity does not contain albumin.

19. A stabilized solution with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs, a detergent or organic polymer, and a carbohydrate, wherein after lyophilization and reconstitution, the specific factor VIII:C activity is at least 2000 IU/mg.

20. A solution as claimed in claim 7, wherein the factor VIII:C activity is derived from a genetically engineered factor VIII:C.

21. A stabilized solution with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs, a detergent or organic polymer, wherein the specific factor VIII:C activity is at least 1000 IU/mg and wherein the potency of the stabilized factor VIII:C solution is at least 200 IU/ml.

22. A stabilized solution with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs, a detergent or organic polymer, and a carbohydrate, wherein the specific factor VIII:C activity is at least 2000 IU/mg and wherein the potency of the stabilized factor VIII:C solution is at least 200 IU/ml.

23. A stabilized solution with factor VIII:C activity containing factor VIII:C, an amino acid or one of its salts or homologs and a detergent or an organic polymer, wherein the specific factor VIII:C activity is at least 1000 IU/mg and wherein the concentration of detergent is from 0.001 to 0.05% w/v.

* * * * *

JS 44 (Rev. 3/99)

CIVIL COVER SHEET

The JS-44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM.)

I. (a) PLAINTIFFS

AVENTIS PHARMA S.A.

(b) County of Residence of First Listed Plaintiff *

(EXCEPT IN U.S. PLAINTIFF CASES)

* Plaintiff is a French corporation

(c) Attorney's (Firm Name, Address, and Telephone Number)

Steven J. Balick
Ashby & Geddes, 222 Delaware Avenue, 17th Fl.
P.O. Box 1150, Wilmington, DE 19899
(302) 654-1888

DEFENDANTS

BAXTER HEALTHCARE CORP.

County of Residence of First Listed

(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE LAND INVOLVED.

Attorneys (If Known)

Unknown

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
- ☒ 3 Federal Question (U.S. Government Not a Party)
- ☐ 2 U.S. Government Defendant
- ☐ 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- Citizen of This State ☐ 1 ☐ 1 DEF Incorporated or Principal Place of Business In This State ☐ 4 ☐ 4 DEF
- Citizen of Another State ☐ 2 ☐ 2 DEF Incorporated and Principal Place of Business In Another State ☐ 5 ☐ 5 DEF
- Citizen or Subject of a Foreign Country ☐ 3 ☐ 3 DEF Foreign Nation ☐ 6 ☐ 6 DEF

IV. NATURE OF SUIT (Place an "X" in One Box Only)

CONTRACT	TORTS	FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES
<input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Miller Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment <input type="checkbox"/> 151 Medicare Act <input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excl. Veterans) <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholders' Suits <input type="checkbox"/> 190 Other Contract <input type="checkbox"/> 195 Contract Product Liability	PERSONAL INJURY <input type="checkbox"/> 310 Airplane <input type="checkbox"/> 315 Airplane Product Liability <input type="checkbox"/> 320 Assault, Libel & Slander <input type="checkbox"/> 330 Federal Employers' Liability <input type="checkbox"/> 340 Marine <input type="checkbox"/> 345 Marine Product Liability <input type="checkbox"/> 350 Motor Vehicle <input type="checkbox"/> 355 Motor Vehicle Product Liability <input type="checkbox"/> 360 Other Personal Injury	<input type="checkbox"/> 610 Agriculture <input type="checkbox"/> 620 Other Food & Drug <input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC <input type="checkbox"/> 630 Liquor Laws <input type="checkbox"/> 640 R.R. & Truck <input type="checkbox"/> 650 Airline Regs. <input type="checkbox"/> 660 Occupational Safety/Health <input type="checkbox"/> 690 Other	<input type="checkbox"/> 422 Appeal 28 USC 158 <input type="checkbox"/> 423 Withdrawal 28 USC 157 PROPERTY RIGHTS <input type="checkbox"/> 820 Copyrights <input checked="" type="checkbox"/> 830 Patent <input type="checkbox"/> 840 Trademark	<input type="checkbox"/> 400 State Reapportionment <input type="checkbox"/> 410 Antitrust <input type="checkbox"/> 430 Banks and Banking <input type="checkbox"/> 450 Commerce/ICC Rates/etc. <input type="checkbox"/> 460 Deportation <input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations <input type="checkbox"/> 810 Selective Service <input type="checkbox"/> 850 Securities/Commodities/Exchange <input type="checkbox"/> 875 Customer Challenge 12 USC 3410 <input type="checkbox"/> 891 Agricultural Acts <input type="checkbox"/> 892 Economic Stabilization Act <input type="checkbox"/> 893 Environmental Matters <input type="checkbox"/> 894 Energy Allocation Act <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 900 Appeal of Fee Determination Under Equal Access to Justice <input type="checkbox"/> 950 Constitutionality of State Statutes <input type="checkbox"/> 890 Other Statutory Actions
REAL PROPERTY <input type="checkbox"/> 210 Land Condemnation <input type="checkbox"/> 220 Foreclosure <input type="checkbox"/> 230 Rent Lease & Ejectment <input type="checkbox"/> 240 Torts to Land <input type="checkbox"/> 245 Tort Product Liability <input type="checkbox"/> 290 All Other Real Property	CIVIL RIGHTS <input type="checkbox"/> 441 Voting <input type="checkbox"/> 442 Employment <input type="checkbox"/> 443 Housing/Accommodations <input type="checkbox"/> 444 Welfare <input type="checkbox"/> 440 Other Civil Rights	PRISONER PETITIONS <input type="checkbox"/> 510 Motions to Vacate Sentence <input type="checkbox"/> 530 General Habeas Corpus <input type="checkbox"/> 535 Death Penalty <input type="checkbox"/> 540 Mandamus & Other <input type="checkbox"/> 550 Civil Rights <input type="checkbox"/> 555 Prison Condition	LABOR <input type="checkbox"/> 710 Fair Labor Standards Act <input type="checkbox"/> 720 Labor/Mgmt. Relations <input type="checkbox"/> 730 Labor/Mgmt. Reporting & Disclosure Act <input type="checkbox"/> 740 Railway Labor Act <input type="checkbox"/> 790 Other Labor Litigation <input type="checkbox"/> 791 Empl. Ret. Inc. Security Act	SOCIAL SECURITY <input type="checkbox"/> 861 HIA (1395ff) <input type="checkbox"/> 862 Black Lung (923) <input type="checkbox"/> 863 DIWC/DIWW (405(g)) <input type="checkbox"/> 864 SSID Title XVI <input type="checkbox"/> 865 RSI (405(g)) FEDERAL TAX SUITS <input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant) <input type="checkbox"/> 871 IRS--Third Party 26 USC 7609

V. ORIGIN (PLACE AN "X" IN ONE BOX ONLY)

- ☒ 1 Original Proceeding
- ☐ 2 Removed from State Court
- ☐ 3 Remanded from Appellate Court
- ☐ 4 Reinstated or Reopened
- ☐ 5 Transferred from another district (specify)
- ☐ 6 Multidistrict Litigation
- ☐ 7 Appeal to District Judge from Magistrate Judgment

VI. CAUSE OF ACTION (Cite the U.S. Civil Statute under which you are filing and write brief statement of cause. Do not cite jurisdictional statutes unless diversity.)

This is an action arising under the patent laws of the United States, 35 U.S.C. § 100, et seq.

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A CLASS ACTION UNDER F.R.C.P. 23

DEMAND \$ monetary relief

CHECK YES only if demanded in complaint:

JURY DEMAND: ☐ Yes ☒ No

VIII. RELATED CASE(S) IF ANY

(See instructions):

JUDGE SleetDOCKET NUMBER 03-373-GMS

DATE

October 16, 2006

SIGNATURE OF ATTORNEY OF RECORD

Steven J. Balick

FOR OFFICE USE ONLY

RECEIPT # AMOUNT APPLYING IFP JUDGE MAG. JUDGE

JS 44 Reverse (Rev. 12/96)

INSTRUCTIONS FOR ATTORNEYS COMPLETING CIVIL COVER SHEET FORM JS-44**Authority For Civil Cover Sheet**

The JS-44 civil cover sheet and the information contained herein neither replaces nor supplements the filings and service of pleading or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. Consequently, a civil cover sheet is submitted to the Clerk of Court for each civil complaint filed. The attorney filing a case should complete the form as follows:

I. (a) Plaintiffs-Defendants. Enter names (last, first, middle initial) of plaintiff and defendant. If the plaintiff or defendant is a government agency, use only the full name or standard abbreviations. If the plaintiff or defendant is an official within a government agency, identify first the agency and then the official, giving both name and title.

(b.) County of Residence. For each civil case filed, except U.S. plaintiff cases, enter the name of the county where the first listed plaintiff resides at the time of filing. In U.S. plaintiff cases, enter the name of the county in which the first listed defendant resides at the time of filing. (NOTE: In land condemnation cases, the county of residence of the "defendant" is the location of the tract of land involved.)

(c) Attorneys. Enter the firm name, address, telephone number, and attorney of record. If there are several attorneys, list them on an attachment, noting in this section "(see attachment)".

II. Jurisdiction. The basis of jurisdiction is set forth under Rule 8(a), F.R.C.P., which requires that jurisdictions be shown in pleadings. Place an "X" in one of the boxes. If there is more than one basis of jurisdiction, precedence is given in the order shown below.

United States plaintiff. (1) Jurisdiction based on 28 U.S.C. 1345 and 1348. Suits by agencies and officers of the United States, are included here.

United States defendant. (2) When the plaintiff is suing the United States, its officers or agencies, place an "X" in this box.

Federal question. (3) This refers to suits under 28 U.S.C. 1331, where jurisdiction arises under the Constitution of the United States, an amendment to the Constitution, an act of Congress or a treaty of the United States. In cases where the U.S. is a party, the U.S. plaintiff or defendant code takes precedence, and box 1 or 2 should be marked.

Diversity of citizenship. (4) This refers to suits under 28 U.S.C. 1332, where parties are citizens of different states. When Box 4 is checked, the citizenship of the different parties must be checked. (See Section III below; federal question actions take precedence over diversity cases.)

III. Residence (citizenship) of Principal Parties. This section of the JS-44 is to be completed if diversity of citizenship was indicated above. Mark this section for each principal party.

IV. Nature of Suit. Place an "X" in the appropriate box. If the nature of suit cannot be determined, be sure the cause of action, in Section IV below, is sufficient to enable the deputy clerk or the statistical clerks in the Administrative Office to determine the nature of suit. If the cause fits more than one nature of suit, select the most definitive.

V. Origin. Place an "X" in one of the seven boxes.

Original Proceedings. (1) Cases which originate in the United States district courts.

Removed from State Court. (2) Proceedings initiated in state courts may be removed to the district courts under Title 28 U.S.C., Section 1441. When the petition for removal is granted, check this box.

Remanded from Appellate Court. (3) Check this box for cases remanded to the district court for further action. Use the date of remand as the filing date.

Reinstated or Reopened. (4) Check this box for cases reinstated or reopened in the district court. Use the reopening date as the filing date.

Transferred from Another District. (5) For cases transferred under Title 28 U.S.C. Section 1404(a) Do not use this for within district transfers or multidistrict litigation transfers.

Multidistrict Litigation. (6) Check this box when a multidistrict case is transferred into the district under authority of Title 28 U.S.C. Section 1407. When this box is checked, do not check (5) above.

Appeal to District Judge from Magistrate Judgment. (7) Check this box for an appeal from a magistrate judge's decision.

VI. Cause of Action. Report the civil statute directly related to the cause of action and give a brief description of the cause.

VII. Requested in Complaint. Class Action. Place an "X" in this box if you are filing a class action under Rule 23, F.R.Cv.P.

Demand. In this space enter the dollar amount (in thousands of dollars) being demanded or indicate other demand such as a preliminary injunction.

Jury Demand. Check the appropriate box to indicate whether or not a jury is being demanded.

VIII. Related Cases. This section of the JS-44 is used to reference related pending cases if any. If there are related pending cases, insert the docket numbers and the corresponding judge names for such cases.

Date and Attorney Signature. Date and sign the civil cover sheet.

AO FORM 85 RECEIPT (REV. 9/04)

United States District Court for the District of Delaware

06 - 636

Civil Action No. _____

ACKNOWLEDGMENT
OF RECEIPT FOR AO FORM 85

NOTICE OF AVAILABILITY OF A
UNITED STATES MAGISTRATE JUDGE
TO EXERCISE JURISDICTION

I HEREBY ACKNOWLEDGE RECEIPT OF 1 COPIES OF AO FORM 85.

OCT 16 2006

(Date forms issued)

Dustin Fröhlich
(Signature of Party or their Representative)

Dustin Fröhlich
(Printed name of Party or their Representative)

Note: Completed receipt will be filed in the Civil Action